



NASA ASTROBIOLOGY INSTITUTE ANNUAL REPORT YEAR [July 2003 - June 2004]

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Annual Reports :: Year 6 :: European Exo/Astrobiology Network Association, EANA

Intl. Partners: European Exo/Astrobiology Network Association, EANA

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Executive Summary

Director/Leader: André Brack

Introduction

The European Exo/Astrobiology Network Association, EANA, co-ordinates the activities in the field of exo/astrobiology of 17 European nations: Austria, Belgium, Denmark, Finland, France, Germany, Hungary, Italy, Poland, Portugal, Romania, Russia, Spain, Sweden, Switzerland, The Netherlands, the United Kingdom. The specific objectives of EANA are to bring together European researchers interested in exo/astrobiology programmes and to foster their cooperation, to attract young scientists to this quickly evolving interdisciplinary field of research, to interface the Network with European bodies such as ESA, ESF, the European Commission and with non European institutions active in the field and to popularise exo/astrobiology to the public and to students.

Recent activities (activities of CAB, GDR Exobio and ASB will be reported separately)

New EANA country members

Early in 2004, EANA welcomed 5 new member countries, i.e. Finland, Hungary, Poland, Romania and Russia, thus raising the number of member countries to 17.

Third European Workshop on Exo/Astrobiology

The Third European Workshop on Exo/Astrobiology was held in Madrid, Spain, 18–20 November 2003, co-organized by EANA and the Centro de Astrobiología . Attended by 260 participants, the workshop was oriented towards the search for life on Mars. The following themes were covered by 58 oral communications and 129 posters:

- Martian atmosphere and hydrosphere
- Radiation state
- Terrestrial analogues
- Extremophiles as references
- Martian meteorites
- Planetary protection
- The Martian missions

Swedish Astrobiology Network, SWAN

SWAN held two national meetings, in Uppsala on 25 November 2003 and in Lund on 6 May 2004.

Federation of Astrobiology Organizations, FAO

EANA is a member of the Federation of Astrobiology Organizations, FAO, including the Australian Centre for Astrobiology (ACA), the Astrobiology Society of Britain (ASB), the Spanish Centro de Astrobiología (CAB), the French Groupement de Recherche en Exobiologie (GDR Exobio), the American NASA Astrobiology Institute (NAI), the Red Mexicana de Astrobiología (RMA) and the Swedish Astrobiology Center (SWAN). EANA actively participated in defining the present status of the FAO, i.e. a federation of astrobiology networks, associations, institutes, research groups, and societies broadening the opportunities available to talented students from all countries, supporting activities that develop their academic and research potentials and harmonising the numerous astrobiology meetings.

EU-funded activities collaborating with EANA

COST Action

Within the framework of the European Commission COST Actions to foster cooperation in a specific research area, COST D27 "*Origin of life and early evolution*" was approved in 2001 for a period of 5 years. The main objective of the Action is to develop the chemistry connected with the origin of life and early evolution of life on Earth, with special emphasis on self-replicating systems, prebiotic synthesis of nucleic acids and polypeptides, as well as simple protocells as early models of biological cells. The Proceedings of the First COST D27 Workshop "Origin of life and early evolution" held in Ravello, Italy, 17–20 October 2002 have been published: Guest Editor Luigi Luisi, *Origins Life Evol. Biosphere* (2004) Vol. 34, pp.1–275. The next COST D27 meeting will be held in Crete, from September 30 to October 2, 2004.

EU FP6 PACE

The scope of the EU FP6 integrated project "PACE" (Programmable Artificial Cell Evolution) is to create technologies necessary for the implementation of a minimal cell, i.e. a metabolic subsystem, a genetic subsystem and a membrane-forming subsystem. PACE includes a total of 10 partner organisations from all over Europe and three associated partnerships of members from US-organisations. PACE-initiating research activities were recently reported on two international symposia (Cf. S. Rasmussen et al., *Science* 303, 963–965, 2004).

Future activities and objectives

The Fourth European Exo/Astrobiology Workshop will be hosted by the Open University in Milton Keynes, November 23–25, 2004. The Workshop will be dedicated to *Life in extreme environments*.

The following objectives will be pursued:

- to interface the Network with European bodies such as ESA, ESF, the European Commission and with non European institutions active in the field

- to promote the Federation of Astrobiology Organizations, FAO
- to popularise Exo/Astrobiology to the public and to students

General publications

- III European Workshop on Exo/Astrobiology, *Mars: The Search for Life*, Madrid 18–20 november 2003, Eds. R.A. Harris and L. Ouweland, ESA Special Publication ESA SP–545 (2004).
- Astrobiology: future perspectives (ISSI Workshop April 1–4, 2003, Bern), Eds. P. Ehrenfreund et al., Kluwer Academic Publisher (to appear in July 2004)

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